

ACT20P-PRO DCDC II-S**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image****ACT20P: The flexible solution**

- Precise and highly functional signal converters
- Release levers simplify handling

General ordering data

Version	Signal converter/insulator, 24...230 V AC/DC power supply, Input : I/U universal, Output : I/U universal
Order No.	1481970000
Type	ACT20P-PRO DCDC II-S
GTIN (EAN)	4050118291032
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Depth	113.7 mm	Depth (inches)	4.476 inch
Height	119.2 mm	Height (inches)	4.693 inch
Width	12.5 mm	Width (inches)	0.492 inch
Net weight	130 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Operating temperature, min.	-25 °C	Operating temperature, max.	70 °C
Humidity	5...95 %, no condensation		

Probability of failure

MTBF	76 a
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Input

Input current	configurable, $\pm 0.1\text{mA} \dots \pm 100\text{mA}$	Input resistance, current	< 5 mA: approx. 100 Ω ; >5 mA: approx. 5 Ω
Input resistance, voltage	approx. 1 M Ω	Input signal	Voltage source, Current source
Input voltage	configurable, $\pm 40\text{mV} \dots \pm 300\text{V}$, Measuring range, min 40 mV	Number of inputs	1
Sensor	4-wire sensor (with own power supply)		

Output

Cut-off frequency (-3 dB)	> 10 kHz/ < 10 Hz	Load impedance current	$\leq 600\ \Omega$
Offset current	20 μA	Offset voltage	< 10 mV
Output current	Adjustable, $0 \dots \pm 20\text{mA}$	Output voltage, note	Adjustable, $0 \dots \pm 10\text{V}$
Type	active (as current source) or passive (as current sink), connected control can be active / passive	load impedance voltage	$\geq 1\text{ k}\Omega$

Output (digital)

Max. switching voltage, AC	0 V	Status indicator	Green LED
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Output (analogue)

Output current	Adjustable, $0 \dots \pm 20\text{mA}$
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Display

Display value	current measured value, Configuration data	Type	Dot-matrix display with ticker text, green
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Technical data

General data

Accuracy	< 0.05 % of measuring range	Configuration	DIP switch, or via display and push-buttons
Galvanic isolation	3-way isolator, between input / output / supply	Power consumption	≤2.3 W
Rail	TS 35	Step response time	≤50 µs
Temperature coefficient	≤0,01% des Messbereichs/°C	Voltage supply	24...230 V DC ±20 %, 24...230 V AC ±10 % @ 48...62 Hz

Insulation coordination

EMC standards	EN 60079-0, EN 60079-15, EN 61010-1, EN 61140, EN 61326-1, UL 61010-1, SN29500 for MTBF	Galvanic isolation	3-way isolator, between input / output / supply
Impulse withstand voltage	5 kV (1.2/50 µs)	Insulation voltage	4 kV _{eff} , input / output / power supply
Pollution severity	2	Rated voltage	600 V
Surge voltage category	II		

Data for Ex applications (ATEX)

Marking	II 3 G Ex nA IIC T4 Gc
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Connection data

Type of connection	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	2.5 mm ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

Classifications

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	EC002653	ETIM 9.0	EC002653
ECLASS 9.0	27-21-01-20	ECLASS 9.1	27-21-01-20
ECLASS 10.0	27-21-01-20	ECLASS 11.0	27-21-01-20
ECLASS 12.0	27-21-01-20	ECLASS 13.0	27210120

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

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Technical data

Important note

Product information

The universally configurable DC isolating amplifier ACT20P-PRO DCDC II isolates and converts analogue signals. An analogue input signal (current or voltage) is linearly converted into an analogue output signal (current or voltage) and galvanically isolated. The power supply is galvanically isolated from the input and output (3-way isolation).

Properties

- universal wide-range voltage supply
- universally configurable via DIP switch or via the LED display using control buttons
- Active or passive signal output
- Operating status display on a front panel LED
- Galvanic 3-way isolation between input, output and supply.

Approvals

Approvals



Approvals	CULUS;
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E314307
Certificate no. (cULusEX)	E345958

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity Application notes – UL - certification Electrical Equipment Application notes – DNV German Lloyd approval Application notes – ATEX certification Application notes – UL - certification Hazardous Locations
Engineering Data	CAD data – STEP
Engineering Data	Zuken E3.S
Software	Runtime Software – DIP switch configuration tool
User Documentation	Device description – instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	

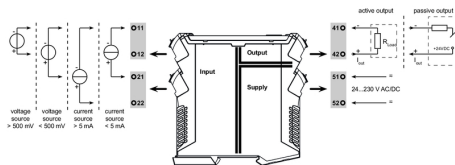
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Drawings

Wiring



DIP switch setting for standard values

Input range	DIP switch			
configuration via display	1	2	3	4
-10...+10 V				
-5...+5V				
0...300 V				
0...100 V				
0...30 V				
0...10 V				
2...10 V				
0...5 V				
1...5 V				
0...150 mV				
0...60 mV				
-20...+20 mA				
0...20 mA				
4...20 mA				
reserved				

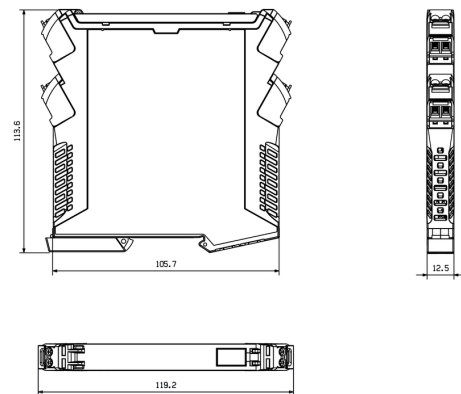
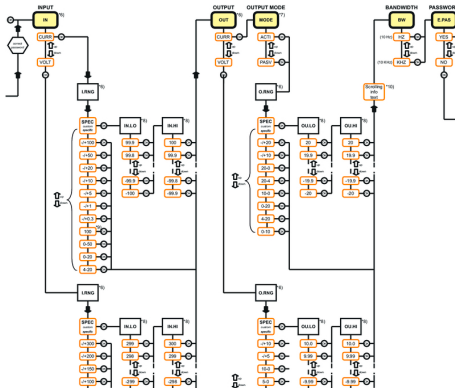
Output range	DIP switch			
configuration via display	5	6	7	8
-10...+10 V				
-5...+5V				
10...0 V *				
0...10 V				
2...10 V				
5...0 V *				
0...5 V				
1...5 V				
-20...+20 mA				
-10...+10 mA				
20...0 mA *				
0...20 mA				
20...4 mA *				
4...20 mA				
reserved				

■ = ON

* Inverted output range: Output polarity must be reversed!

Dimensioned drawing

Configuration menu (part) universal input / output values



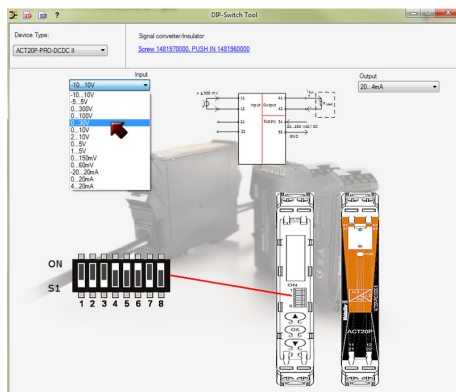
setting via display and push-buttons

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Drawings



example for DIP switch setting (with ACT20 tool)